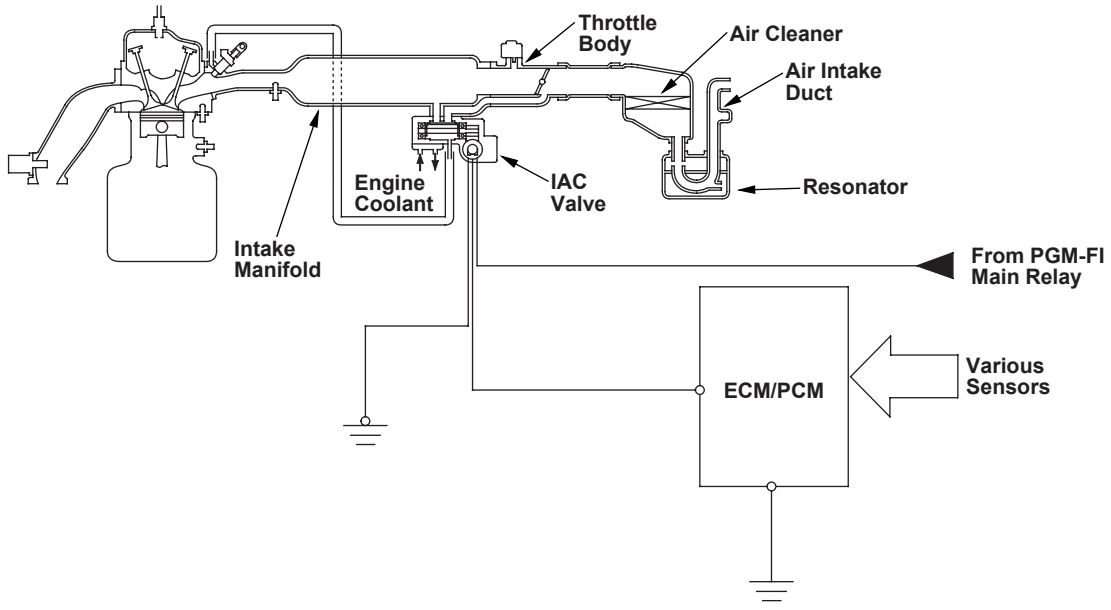
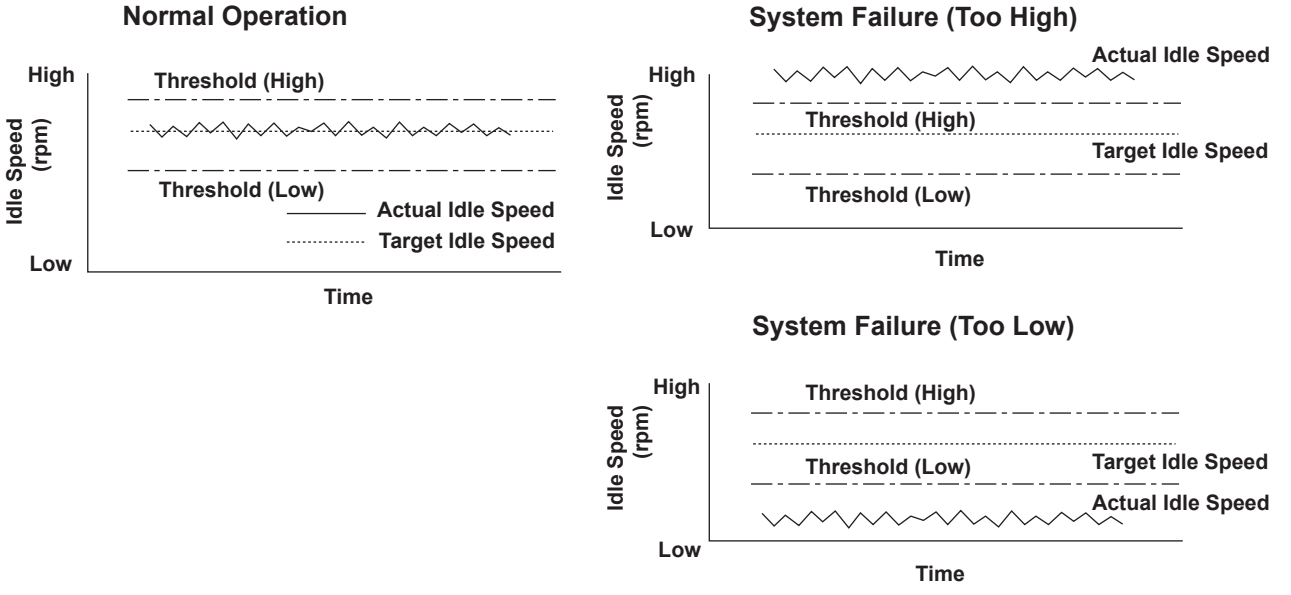
DTC P0505: Idle Control System Malfunction



P0505-9871



P0505-9671

General Description

A target idle speed that meets the engine operating conditions (coolant temperature, A/C ON or OFF, etc.) is stored in the engine control module (ECM)/powertrain control module (PCM). The ECM/PCM monitors and controls the idle speed so that the actual idle speed is equal to the target idle speed. If the actual idle speed varies beyond a specified value from the target speed (too low/high) over a certain period of time, the ECM/PCM detects a malfunction in the idle speed control system and a DTC is stored.

Monitor Execution, Sequence, Duration, DTC Type

Execution	Under the Enable Conditions
Sequence	None
Duration	20 seconds or more
DTC Type	Two drive cycles, MIL ON

Enable Conditions

Condition	Minimum	Maximum
Elapsed time after starting the engine	15 seconds	—
Engine coolant temperature	177ºF (81ºC)	212ºF (100ºC)
Intake air temperature	32ºF (0ºC)	185ºF (85ºC)
MAP value (M/T only)	51 kPa (389 mmHg, 15.3 in.Hg)*	—
	31 kPa (239 mmHg, 9.4 in.Hg)**	
Fuel trim	0.73	1.47
Battery voltage	10.6 V	—
Fuel feedback	Closed loop	
Throttle position	Fully closed	
No active DTCs	ECM/PCM, Primary HO2S*1, Primary HO2S Heater*1, A/F Sensor Heater*2, MAP, CKP, ECT, TP, TDC, CYP, IAT, EGR, BARO, IAC, VSS, VTEC System, Fuel System, Misfire	
Others	The engine is under no load	
	At idle	

* : Atmospheric pressure 101 kPa (760 mmHg, 30.0 in.Hg).
** : Atmospheric pressure 60 kPa (451 mmHg, 18.0 in.Hg).
*1: F23A1, F23A5 engines
*2: F23A4 engine

Malfunction Threshold

The actual idle speed is at least 200 rpm greater than or 100 rpm less than the target idle speed for at least 20 seconds.

Driving Pattern

1. Start the engine. Hold the engine at 3,000 rpm with no load (in park or neutral) until the radiator fan comes on.
2. Let the engine idle for at least 20 seconds.

Diagnosis Details

Conditions for illuminating the MIL

When a malfunction is detected during the first drive cycle, a Temporary DTC is stored in the ECM/PCM memory. If the malfunction recurs during the next (second) drive cycle, the MIL comes on and the DTC and the freeze frame data are stored.

Conditions for clearing the MIL

The MIL will be cleared if the malfunction does not recur during three consecutive trips in which the diagnostic runs.
The MIL, the DTC, the Temporary DTC, and the freeze frame data can be cleared by using the scan tool Clear command or by disconnecting the battery.